AL.1.1231

Naturally Yours

October 1990 NO12

Alberta's Seven New Natural Areas

The Natural Areas Program is sponsored by Alberta Forestry, Lands and Wildlife

There are now 119 designated Natural Areas in Alberta to conserve special features of plant life, wildlife and terrain.

The announcement of seven new Natural Areas was made by the Honourable LeRoy Fjordbotten, Minister of Alberta Forestry, Lands and Wildlife, on July 14, 1990. With the addition of Canmore Flats, Caribou River, Fourth Creek, La Saline, McGregor Lake, Scalp Creek and White Earth Valley, the land under Natural Area designation in this province jumps by 13 227 ac. (5353 ha.).

1. Caribou River
2. La Saline
3. Fourth Creek
4. White Earth Valley
5. McGregor Lake
6. Scalp Creek
7. Canmore Flats

Canmore Flats is a complex terrain of wetlands, river channels, springs and forests, along the Bow River floodplain east of Canmore. This 1457 ac. (590 ha) site features mixed woods, white spruce stands with diverse shrubs, wetlands and willow shrublands. The site is home to unusual plant species, extensive calcareous springs, and nests of osprey have been reported. It is the most important brown trout spawning area in the Canmore corridor.

The 482 ac. (196 ha) **Caribou River** Natural Area's shrubby grassland is interspersed with aspen groves. It has dry, southern grasslands on an escarpment of the Peace River, and includes alluvial terraces of the Caribou River and meander scars. This site can be found 15 km northeast of Fort Vermilion.

Scenic vistas characterize the superb wildlife habitat of **Fourth Creek.** Picture wheatgrass grasslands on steeply sloped valley walls, sandstone outcrops and a 6 m waterfall on the creek. Two forests, one of young seral aspen and the other of aspen-spruce mixedwood, are found on the 2408 ac. (975 ha) site.

La Saline Natural Area borders Saline Lake, the most productive waterfowl nesting site in the area, 35 km north of Fort McMurray. The flow of La Saline Springs, down the Athabasca River embankment to an oxbow lake, leaves numerous types of mineral deposits and crystal formations. The largest tufa deposits in the region, attract ungulates in search of salt to the 721 ac. (292 ha) site.

Devil's-club, mountain ash and red elderberry are among the rare and unusual plants found in **McGregor Lake** Natural Area. This 2280 ac. (923 ha) site features a steep, north slope escarpment, white spruce-lodgepole pine forest, poplar stands, shrublands, mesic and dry meadows.

Permafrost activity is evident in the **Scalp Creek** Natural Area with its hummocky and pockmarked terrain. This 798 ac. (323 ha) vital wildlife habitat area is located 70 km west of Sundre. The site is composed of diverse grasslands as well as wet meadows, Engelmann spruce-alpine, fir-lodgepole pine stands and dwarf birch shrubland.

White Earth and Long lakes are part of the **White Earth Valley** Natural Area, a picturesque 5078 ac. (2055 ha) site of grassy meadows, wetlands and forested areas. Predominantly aspen-balsam-poplar forest, with an abundance of willow, chokecherry and saskatoon in the understory, the site is scenic, undisturbed and excellent for wildlife viewing.❑

Funding For Your Site

Your ideas to improve and protect your Natural Area may be eligible for $50 to $5,000 in corporate funding.

The Shell Environmental Fund has been established to provide $1 million annually to fund action-oriented projects that will ensure a cleaner Canadian environment.

Your application will be reviewed by a regional panel that includes independent environmental experts, government officials and Shell employees. The Canadian Parks and Wilderness Society (CPAWS) will also participate in administering the Fund.

For more information and an application form, write:

Shell Environmental Fund
Box 100, Station M
Calgary, Alberta
T2P 2H5

Or, call the Shell Helps Centre at 1-800-661-1600 today!❑

Attention Stewards !

Just a reminder to those who visited their site during the summer.

Please ensure that you submit your inspection report. These are essential for the long-term monitoring and protection of our natural areas. If you have not visited your site recently, the fall is a beautiful time to do so.❑

Innisfail Natural Area provides challenges

The drained beaver pond at Innisfail

There was a lot of activity at the Innisfail Natural Area this past summer involving the draining of a beaver pond.

In early May, the County of Red Deer discovered that beavers had blocked a culvert under Highway 590. The county cleared the culvert, draining the pond. Timing could not have been worse as there were many species of waterfowl laying and/or hatching their eggs on-site. Previous attempts by the county at clearing the culvert had also resulted in a flush of water that had disasterous effects on a downstream pond.

We were alerted to the draining of the beaver pond by one of the volunteer stewards, Dorothy Dickson, and by a member of the local Fish and Game Association.

Finding a solution

We all met on-site with representatives of other agencies to discuss how to maintain a reasonable level of water in the pond to ensure the roadbed wasn't compromised while protecting habitat for ducks and beaver and regulating downstream flows. The group consensus was that the most effective solution would be a combined berm (dyke) and beaver-proof culvert.

Unfortunately, the County of Red Deer was unable to assist with construction so the berm with beaver-proof culvert was not installed.

During the summer, the culvert was again plugged by beaver and it had to be cleared a second time. At this time, Fish and Wildlife Division staff installed a beaver-proof culvert in the hopes that this would deter the beaver. Construction of this culvert was paid for by the Buck for Wildlife program and included the Red Deer River Naturalists' contributions to that program.

Good news to report

I was really encouraged on my most recent visit (August 26) to see a female mallard, with young, on the pond. There was water in the pond and the culvert was working. Let's hope that the culvert will do the trick and that the pond will remain -- for the sake of all its inhabitants.

Joyce Gould

J. Gould
Natural Areas Program Staff ❑

Volunteer Steward Program Facts

The Volunteer Steward Program is an innovative project in Alberta that has few counterparts in North America. Our stewards are incredibly diverse - their mandates may even seem contradictory - yet they are working together as partners in conservation.

The program is unique in Alberta in bringing people and groups of all backgrounds and mandates together for the common interest of protecting and conserving features, habitats and biota for all Albertans.

There is enormous potential for a program like this to become a means to greater unity among public groups and agencies, and even government agencies. As the boundaries of Natural Areas transcend the Green Area, White Area, municipalities and counties, the people involved can transcend backgrounds and special interests. It is hoped that stewards will get to know and learn from each other and take that knowledge and cooperation into other fields of conservation endeavour in addition to Natural Areas.

Figures as of April 1, 1990

Volunteer Stewards:		
Individuals	114	
Groups	41	
Natural Areas:	267	108 000 ha
Order-in-Council (designated)	112	30 300 ha
Candidate	155	77 700 ha
Available Natural Areas in steward program	207	78 000 ha
Sites with stewards:	116	60 000 ha
Order-in-Council (designated)	59	26 000 ha
Candidate	57	34 000 ha
Sites with:		
One steward	67	29 000 ha
Two stewards	38	14 000 ha
Volunteer management committees	11	17 000 ha
Sites available for stewardship	91	18 000 ha
Highest number of stewards applying in one month:		31 (March 1990)

Year	General Requests	Stewards	Inspection Reports
87-88	40	29	4
88-89	143	63	36
89-90	409	63	80
Total	**592**	**155**	**120**

Two Bellis Trail Guides

Visitors to the Bellis Natural Area, near Smoky Lake, will soon have two interpretive pamphlets to guide their walks— thanks to CPAWS, the site's volunteer steward. The ecology of the 4.2 km Bellis Trail loop is discussed in a booklet of the same name which is available now. The Discovery loop, another trail on-site, is the subject of a second guide now being developed by Pat McIssac, a consultant hired by CPAWS and will feature illustrations donated by some of Alberta's artists. For more information, call CPAWS at 453-8658.❑

Attention Stewards

Comments from the Volunteer Steward Conference questionnaire indicated that there was a lot of interest in the session, "How to Inspect and Monitor Natural Areas", particularly for those who were unable to attend this workshop.

To meet this need, Bill Richards is preparing a "how to" manual that will be sent out to all stewards this winter.

A one-day workshop, "How to Inspect and Monitor Natural Areas", will be held for volunteers:

Date:	Saturday November 24, 1990	
Time:	9:30 a.m. - noon	Indoor session
	1:30 - 5:00 p.m.	Field trip (optional)
Location:	Kerrywood Nature Centre	
	in the McCullough Room	
	6300 - 45 Avenue	
	Red Deer, Alberta	
Cost:	free	

Please bring your Volunteer Steward kit. If you plan to participate in the optional field trip, please bring a bag lunch, binoculars and appropriate clothing.

To register for the workshop or for more information, please call Bill Richards or Sally Turner at 427-5209 on or before November 9, 1990.

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Animal Tracks
Part 4a
Ungulates

Ungulates constitute 10 per cent of Alberta's wild mammals with nine species native to this province.

Ungulates characteristically use an unguligrade walking style, i.e., on the tips of hooved (covered) digits. *See Part One of this animal tracks series for an explanation of comparative walking styles.* This style developed independently in several orders of mammals. In each case, it served to increase the speed of travel for herbivores so they could escape from predators.

The two major orders of ungulates are the Perrissodactyla, which contain odd-toed ungulates like the horse and the Artiodactyla, which includes even-toed ungulates like the deer. All of Alberta's native ungulates belong to the order Artiodactyla. Within this order are three distinct families -- Cervidae (deer), Bovidae (sheep, bison and goats) and Antilocapridae (pronghorn).

In addition to having an even number of toes, Alberta's native ungulates also have long legs, large grinding molars, a multi-chambered stomach and an absence of upper incisors. Males have horns or antlers as well. The Cervidae will be the focus of this article and the remaining two families will be covered in the next track series. The deer family members have antlers exclusively. Antlers are bony outgrowths of the forehead, which are usually branched. They are covered with "velvet" that atrophies and is rubbed off when the antlers are fully grown. Each year the antlers are shed and replaced, i.e., they are deciduous. Cow caribou are the only female cervids to have antlers.

The typical cervid foot has four digits. The animal's weight is borne equally by the third and fourth digits. The second and fifth digits terminate as dewclaws which are slightly elevated at the back of the hoof and thus are called into play for support only on soft surfaces. Furthermore, the hooves tend to splay or separate to provide increased traction or buoyancy when the animal runs or travels on soft ground.

Mule and White-tailed Deer

To identify mule *(Odocoileus hemionus)* and white-tailed *(Odocoileus virginianus)* deer solely on the shape and size of the track is almost impossible. Their tracks are too similar for easy identification. As well, their walking gaits are similar in stride and straddle. However, there is considerable difference in their running or bounding gaits.

The white-tailed deer trots or gallops in a manner similar to that of other ungulates with each hoof landing individually with the right and left hooves forming parallel lines. Mule deer bound and land so that all four hooves form a cluster.

Caribou

Caribou *(Rangifer tarandus)* have the most distinctive hoof pattern - a rounded shape, which aids travel in snow because the two halves of the hoof spread and act as snowshoes. The hind foot is compact with the dewclaws closer to the front of the hoof. As a result, when you spot the overlapping tracks of a caribou in snow or mud, only the front dewclaw prints may show. These ungulates have a gallop and trot consistent with the rest of the deer family, except the mule deer.

Wapiti and Moose

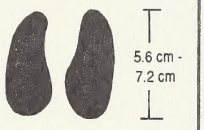
Wapiti (*Cervus elaphus*) tracks are generally shorter and blunter in comparison to those of moose (*Alces alces*). Wapiti is the preferred North American name for elk because European moose are also commonly called elk. Be aware that habitat can greatly affect these characteristics. For example, Wapiti that feed in lush meadows would have longer and more pointed hooves than those feeding on a rocky site.

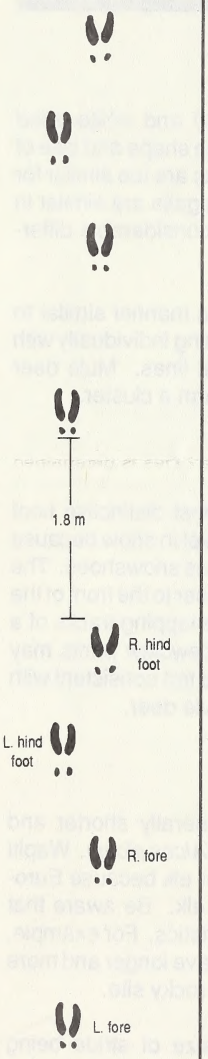
Both wapiti and moose trot with the size of stride being proportional to the size of the animal. Unlike other members of the deer family, moose will not generally gallop.

Wapiti are gregarious (live in herds), while moose generally travel alone or in a cow-and-calf pairing. Domestic cattle tracks, which are easily mistaken for moose or wapiti, will be included in the next article for comparison.

CERVID TRACKS

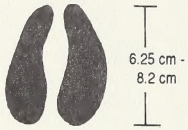
WHITETAIL DEER

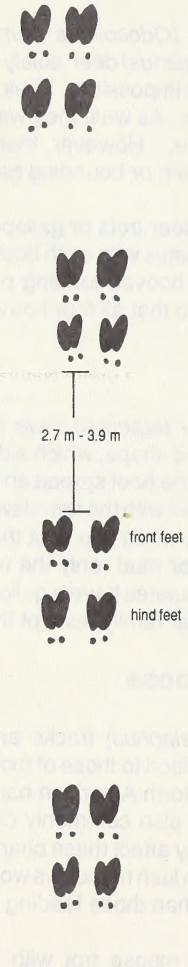




when startled, whitetail deer gallop, landing with hind feet forward and toes splayed

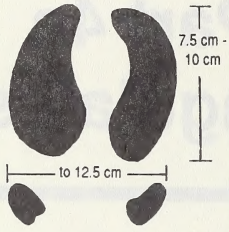
MULE DEER



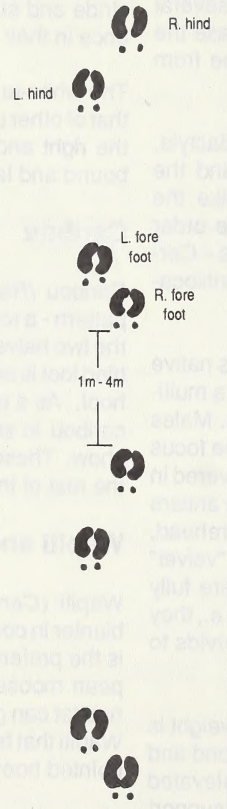


mule deer bound when startled, leaving a tight cluster of all four footprints

CARIBOU

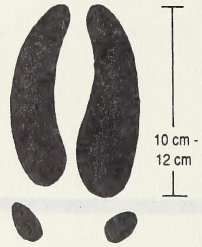


characteristically round, size variable

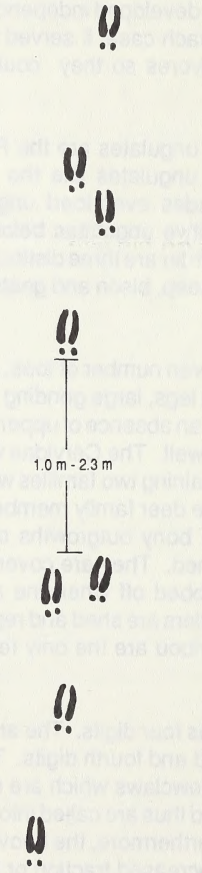


gallop of caribou shows separated prints, length dependent on speed

WAPITI

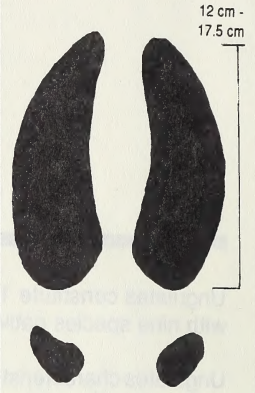


wapiti tracks are generally blunt

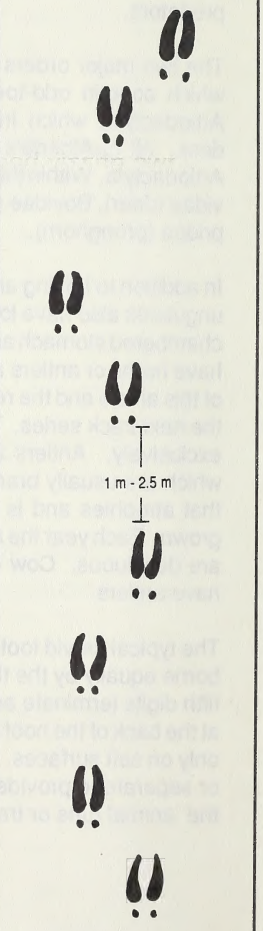


wapiti galloping, toes slightly splayed

MOOSE



moose tracks are usually elongated with pointed tips



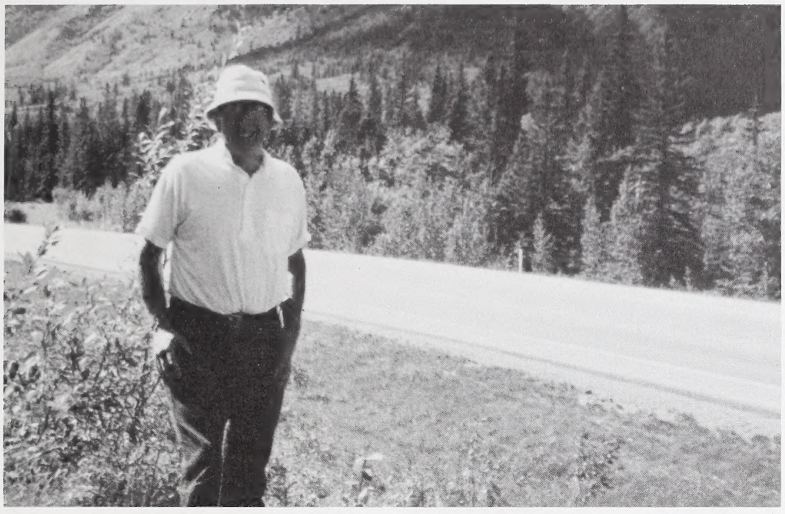
moose trotting

↑ direction of travel ↑

↑ direction of travel ↑

Volunteer Steward Profile:

Desmond Allen



During his first ten months as a volunteer steward, Desmond Allen has discovered an abandoned shack with walls inscribed by prisoners of war, identified 135 plant species and crossed the trail of two grizzly bears on his site.

Des is one of two volunteer stewards for Mt. Lorette, a candidate Natural Area located adjacent to Nakiska Ski Hill and Kananaskis Village between Calgary and Canmore off Highway 1.

A trained geologist, Des recently retired after 19 years with PanCanadian Petroleum Limited of Calgary in his most recent position of Manager, Development Studies. His education and 36-year career in the Calgary oil industry, enriched his interest in natural history, but it was his eldest son's curiosity about insects that led Des to become a volunteer steward.

"When Peter was eight or nine, he had a passionate interest in insects. We found available literature scanty and were directed to the Calgary Field Naturalists and from there to the University of Calgary's Biology Department. They are resourceful people and I still use them," says Des. He became a member of the Calgary Field Nats 15 years ago, and has taken an active role in ensuring the protection of several natural sites around the city including Nose Hill and Fish Creek. Becoming a volunteer steward was the next natural step.

Journey to Mt. Lorette

From the Allens' home near the University of Calgary, it's about an hour's drive to the chained gate marking a power line right-of-way and another 20 minutes to walk 3.2 km into the Mt. Lorette site. Des has made the trip about 15 times since becoming a volunteer steward last November, heading out midmorning and departing from the site as night approaches.

Mt. Lorette boasts many different habitats and geological features, including an alluvial fan with aspen cover, a riverine forest of spruce and large poplar, beaver ponds, marshes, cliffs and ledges of fossil-bearing limestone and, of course, the mountain itself. Approximately one-third of Mt. Lorette is within the proposed Natural Area boundaries. "It's really too bad that the entire mountain isn't on-site as the south-facing slopes would probably have really interesting alpine plant life," says Des. A cabin, which housed prisoners of war, is on the summit of the adjacent Hummingbird Plume Lookout Ridge, a good day's climb from the best vehicle access point.

Des reports the site is undisturbed except for one area where topsoil has been removed. He feels the reason for this untouched state is that travellers through the site stick to a road created for power company trucks. Cyclists, as well as horseback riders, travel from the Barrier Lake Dam through to the neighbouring Ribbon Creek Youth Hostel along the power line trail. Some motorcycle tracks have also been spotted and cross country skiers are plentiful in winter. However, the majority of use is confined to this road.

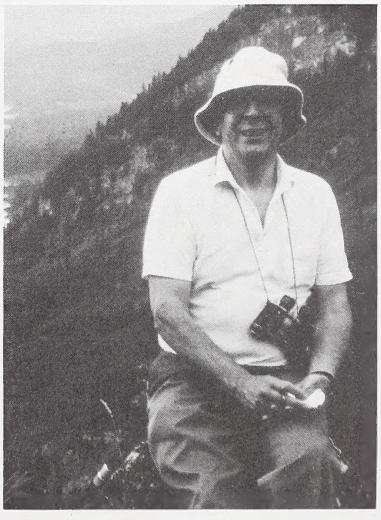
Packing and planning

When visiting the site, Des packs in paper and pencil, a small pair of binoculars, rain gear and two reference books (one dealing with native Alberta plants, the other identifying North American birds).

"To date, I've seen about 30 different bird species, including two osprey which were hunting and diving for trout by the beaver ponds. They appeared to be just passing through though," says Des. "I'd like to arrange to have a key to the access gate if it's possible so that I do not waste 40 minutes each visit walking into the site. I plan to buy a mountain bike to travel faster."

When questioned about the Natural Areas Program, Des replies, "The staff have given me a lot of support and I like the people very much. They're a long way away though and I don't get to see them often enough." Des has found additional support is readily available in helping to identify fauna and birds from individuals who work at the University of Calgary.

What are his plans for the candidate Mt. Lorette Natural Area? Des is determined to know the area thoroughly -- each visit he discovers 15-20 species for the first time. He will then complete an extensive two-to-three year inventory of the plants, animals and birds on-site. Des hopes the inventory will yield rare or unusual elements, so that a permanent Natural Area designation will be given to the site. The next stop will be to map all habitats. The maps will be essential in planning the trails Des hopes to complete by working cooperatively with the Natural Areas Program staff.❑



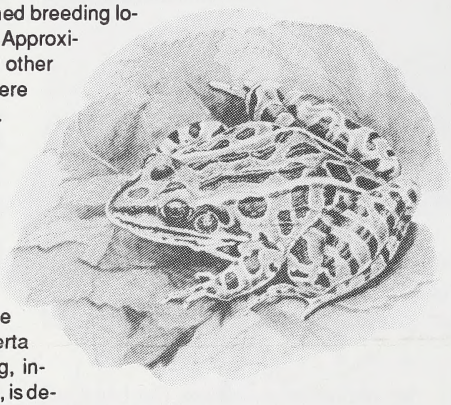
Return to:

Natural Areas Program
4th flr. 9915 - 108 Street
Edmonton, Alberta
T5K 2C9

Have You Seen This Frog?

This is a question the Alberta Fish and Wildlife Division and the World Wildlife Fund are asking. The northern leopard frog's *(Rana pipiens)* population decline has been abrupt and widespread in the last two decades. This species has virtually disappeared from their known ranges in southern and central Alberta.

There is good news to report as a result of the combined efforts of the two organizations. Four confirmed breeding locations were found this summer. Approximately 50 reports were received for other locations. In most cases however there was only a single adult leopard frog. Wood frogs *(Rana sylvatica)* and boreal chorus frogs *(Pseudacris triseriata)* had also been misidentified as leopard frogs. Most reports have come from the south with only two unverified reports for central Alberta.



The northern leopard frog is a candidate for the endangered species lists in Alberta and worldwide. The plight of this frog, including suspected causes of its decline, is described in the July 1990 issue of the Natural Areas Newsletter.

Reference:Stebbins, R.C. 1966 *A Field Guide to Western Reptiles and Amphibians*,Houghton Mifflin.

▼Coming Events▼

Alberta Native Plant Council--Edmonton Plant Study Group
Monthly meetings are held 7:30 p.m., fourth Thursday of each month at the Provincial Museum, Gallery 1.

October 25, 1990
Moss: Plant Adaptation to Extremes (specimens to view) Presented by: Dr. Dale Vitt (co-author of *Field Guide to Mosses, Lichens and Ferns of Northwest North America*)

November 29, 1990
Wildflowers of the Dempster Highway, Yukon Territory
(medicinal and edible uses of plants)
Presented by: Linda Kershaw

January 24, 1990
Native Orchids (of Alberta and Wagner Bog)
Presented by: Terry Thormin

For more information, contact:
Margaret Flatman 451-0429
Joyce Gould 449-6619

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Site Updates

A total of 28 ac. (11 ha) of land adjacent to **Clifford E. Lee** Nature Sanctuary near Devon, has been purchased through the modest land acquisition budget available each year for Natural and Protected Areas. This land is a key to the long term protection and ecological integrity of the sanctuary as it contains the outflow of the large wetland, the main feature of the Clifford E. Lee area. Program staff worked closely with the Sanctuary Management Committee (Canadian Nature Federation), Parks Ventures Fund and Alberta Public Works, Supplies and Services, in acquiring this property.❑

Alberta Environment has concluded that an EIA is not required for Strathcona County's proposed upgrading of Wye Road through the **North Cooking Lake** Natural Area, west of Sherwood Park. Friends of the natural area had petitioned for the EIA because of concerns related to the county's need for a new 40 m right-of-way. The present Wye Road corridor is too narrow to accommodate the recommended road standard of the new highway. The county acquired the right-of-way in 1987.❑

The Wagner Study Area Advisory Group (WAGSAG) has received the provincial agencies' comments on the final Environmental Impact Assessment (EIA) report for road developments in the vicinity of the **Wagner Natural Area**. WAGSAG, comprised of members of the public and government agencies, have discussed the comments and are adding their own recommendations before submitting the entire package to the Honourable Al Adair, Minister of Alberta Transportation and Utilities, this fall.❑